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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,753

11/28/2006

Yukio Kusu

0388-061031

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28289 7590 09/18/2009
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EXAMINER

DAVIS, ROBERT B

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

09/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,753	Applicant(s) KUSU, YUKIO	
	Examiner Robert B. Davis	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/6/07</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima et al (EP 1230905 A1: figures 3-5 and column 8, line 48 to column 9, line 22) taken together with Steinel et al (DE 3205053 A1: figures 1-4, the English abstract and the machine translation of the reference obtained from the EPO website).

3. Kawashima et al disclose a container manufacturing device for manufacturing a container body (1) made of a thermoplastic material having a liquid storage portion (2) for containing liquid and an instilling hole (6c) for controlling a drop amount of discharged liquid to be a predetermined amount, comprising a piercing unit (21) for piercing the container body to form the installing hole therein, wherein the piercing unit includes a needle-like portion (21B) for forming the installing hole, and a heater for heating the needle-like portion. The reference discloses a HF induction heater, a warm air heater or a halogen lamp heater for heating the needle-like portion. The reference does not disclose PTC heater.

4. Steinel et al disclose a device for melt cutting of plastic comprising: a cutter blade (13) attached to a PTC heating resistor (21) by means of a thin walled portion (22) of heatable body (11) wherein the use of the PTC resistor heating allows for temperature

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control of the cutter blade with an extremely simple apparatus without the use of a thermostatic switch or temperature controller. This results in more accurate work due to tailored temperature control of the blade by using the PTC heating resistor. See the translation of the Steinel et al reference.

5. It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of Kawashima et al by using a PTC resistor heater as disclosed by Steinel et al for the purpose of heating a cutting member with a simple device which does not require complex thermostatic control of a heating device. Given the quick start heating and then the tailoring of the PTC heating resistor to a specific temperature as known in the electrical heating art one of ordinary skill in the art would recognize the use of the PTC heating resistor as applying a known technique to improve a similar device ready for improvement to yield predictable results. See *KSR Int'l Co. v. Teleflex Inc.*, 82 USPQ2d 1385.

6. In regards to claim 2, it would have been further obvious to further modify the combination of Kawashima et al and Steinel et al to surround the needle with the PTC heating resistor to improve control of the needle in relation to the heater by maximizing the conduction of heat from the heater to the element being heated.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert B. Davis whose telephone number is 571-272-1129. The examiner can normally be reached on Monday-Friday 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert B. Davis/
Primary Examiner, Art Unit 1791
9/15/09